

**EXPRESS TERMS
OF
PROPOSED BUILDING STANDARDS
OF THE
DIVISION OF THE STATE ARCHITECT - STRUCTURAL SAFETY (DSA-SS)**

**REGARDING ADOPTION OF THE 2006 UNIFORM MECHANICAL CODE,
FOR USE IN THE CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 4**

LEGEND FOR EXPRESS TERMS

1. California amendment (CA) language being continued without modification is shown in *italics*.
2. New California amendment (CA) language is shown *underlined and in italics*.
3. Repealed California amendment (CA) language is shown in ~~strikeout and in italics~~.
4. Model code language that is modified: Model code text that is not adopted is shown in ~~strikeout and in normal font~~, and new California amendment language is shown *underlined and in italics*.

The Division of the State Architect - Structural Safety (DSA-SS) adopts model code provisions and promulgates amendments as required by statute for application to public elementary and secondary schools, community colleges, and state-owned or state-leased essential services buildings.

As presented on the following pages, DSA-SS proposes to adopt provisions contained in the 2006 edition of the Uniform Mechanical Code (UMC) of the International Association of Plumbing and Mechanical Officials for codification as the 2007 edition California Mechanical Code (CMC).

Amendments contained in the 2001 edition CMC adopted by DSA-SS are proposed to be repealed as indicated below. DSA-SS further proposes to repeal all model code provisions contained in the Uniform Mechanical Code (UMC), 2000 edition, which were adopted by DSA-SS for codification as the 2001 edition California Mechanical Code.

CHAPTER 1 - Administration

Model Code Adoption/Repeal: DSA-SS proposes the repeal of existing administrative amendments and the adoption of new administrative amendments as indicated below. The Building Standards Commission has advised DSA that Chapter 1 of the Uniform Mechanical Code will be relocated to Appendix Chapter 1 without modification, and that Chapter 1 will contain only the administrative provisions of the state agencies.

The following express terms for chapter 1 indicate DSA-SS repeal of all existing amendments contained in Chapter 1 of the 2001 CA Mechanical Code, and the adoption of new administrative provisions that have been provided by the BSC for promulgation by all state agencies.

101.0 Title

101.1 ~~**[For DSA-SS]**~~ These regulations shall be known as the "~~California Mechanical Code,~~" ~~which incorporates the 2000 revisions, copyrighted by the International Association of Plumbing and Mechanical Officials, to the Uniform Mechanical Code,~~ may be cited as such, and will be referred to herein as "this code."

102.0 Purpose

The purpose of this code is to provide minimum standards to safeguard life or limb, health, property and public welfare by regulating and controlling the design, construction, installation, quality of materials, location, operation, and maintenance or use of heating, ventilating, cooling, refrigeration systems, incinerators and other miscellaneous heat-producing appliances within this jurisdiction. ~~[For DSA-SS] for the State of California.~~

The purpose of this code is not to create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of this code.

103.0 Scope

103.1 Applicability. The provisions of this code shall apply to the erection, installation, alteration, repair, relocation, replacement, addition to, use or maintenance of any heating, ventilating, cooling, refrigeration systems, incinerators or other miscellaneous heat-producing appliances within this jurisdiction ~~[For DSA-SS] for the State of California.~~

Additions, alterations, repairs and replacement of equipment or systems shall comply with the provisions for new equipment and systems, except as otherwise provided in Section 104.0 of this code.

Where, in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. Where there is a conflict between a general requirement and a specific requirement, the specific requirement shall be applicable.

The design and testing of equipment regulated by this code shall be subject to the approval of the Authority Having Jurisdiction ~~[For DSA-SS] enforcing agency provided in Section 108.1.1.~~

The standards contained in Appendix A shall be considered as a part of this code. Appendix B and C contain recommended practices that shall not apply unless specifically adopted. Appendix D contains conversion tables and a table for determining the approximate minimum thickness for carbon sheet steel.

~~103.1.1. Effective Date.~~

~~103.1.1.1. [For DSA-SS] Unless otherwise noted herein, effective date is 180 days after the date of publication.~~

~~103.1.5 [For DSA-SS] Non-Building Regulations. Requirements contained in the U.M.C. or in any other reference standard, code, or documents, which are not building standards as defined in Health and Safety Code Section 18909, shall not be construed as part of the provisions of this code.~~

~~Mechanical standards in the code shall have no retroactive or retrospective effect or application on existing construction unless the term and time of application of such standards are specifically identified or specified in this code.~~

~~105.2 [For DSA-SS] Order of Precedence. Where in any specific case, different sections of this code specify different materials, methods of construction or other requirements, the most restrictive shall govern. When there is a conflict between a general and a specific requirement, the specific requirement shall apply.~~

~~Mechanical standards in the code shall have no retroactive or retrospective effect or application on existing construction unless the term and time of application of such standards are specifically identified or specified in this code.~~

~~108.1.1 Application Vesting Authority. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent granted to such agency by the State Legislature.~~

~~108.1.1.11 [For DSA-SS] Division of the State Architect - Structural Safety~~

~~Application - Public elementary and secondary schools, community college buildings, and state-owned or state-leased essential services buildings.~~

~~Enforcing Agency - (DSA-SS)~~

~~Authority Cited - Education Code § 17310 and 81142, and H&S Code §16022.~~

~~Reference - Education Code §§ 17280 through 17317, and 81130 through 81147, and H&S Code §§16000 through 16023.~~

~~The Division of the State Architect has been delegated the responsibility and authority by the Department of General Services to review and approve the design and observe the construction of public school buildings, and state-owned or state-leased essential services buildings.~~

~~The applicable building standards are as follows:~~

~~1. Administrative Regulations.~~

~~1.1 School Buildings; Sections 4-301 through 4-355, Group 1, Chapter 4, Part 1, Title 24, California Code~~

~~of Regulations.~~

~~1.2 State-owned or State-leased Essential Services Buildings; Sections 4-201 through 4-249, Chapter 4, Part 1, Title 24, California Code of Regulations.~~

~~2. Technical Regulations.~~

~~Various model codes adopted by reference into the California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 7, 12, California Code of Regulations, for school buildings, and state-owned or state-leased essential services buildings.~~

~~The Division of the State Architect, in the performance of its duties, coordinates with other state offices as follows:~~

~~2.1 California Building Standards Commission~~

~~2.2 Office of Statewide Health Planning and Development~~

~~2.3 Office of the State Fire Marshal~~

~~2.4 Real Estate Services Division~~

~~2.5 Office of Public School Construction~~

~~**119.0 Format [For DSA-SS]** This part fundamentally adopts the UMC by reference on a chapter-by-chapter basis. Such adoption is reflected in the adoption table of each chapter of this part. When the adoption table of a chapter of this part makes no reference to a specific chapter of the UMC, such chapter of the UMC is not adopted as a portion of this code.~~

~~**120.0 Validity [For DSA-SS]** If any chapter section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes, or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code.~~

~~**121.0 Standard Reference Documents**~~

~~**121.1 [For DSA-SS]** The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code.~~

APPENDIX CHAPTER 1 **ADMINISTRATION ...**

(Note: Chapter 1 of the Uniform Mechanical Code is relocated to Appendix Chapter 1. The California Chapter 1 shown below has been provided to DSA-SS by the California Building Standards Commission.)

CALIFORNIA CHAPTER 1 **GENERAL CODE PROVISIONS**

SECTION 101 **GENERAL**

101.1 Title. These regulations shall be known as the California Mechanical Code, may be cited as such and will be referred to herein as "this code. The California Mechanical Code is Part 4 of eleven parts of the official compilation and publication of the adoptions, amendment, and repeal of building regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the 2006 Uniform Mechanical Code of the International Association of Plumbing and Mechanical Officials with necessary California amendments.

101.2 Purpose. The purpose of the California Code of Regulations, Title 24, as known as the California Building Standards Code (CBSC) is to establish the minimum requirements to protect the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation, energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.

101.3 Scope. The provisions of the California Building Standards Code (CBSC) shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such building structures throughout the State of California.

101.3.1 Non-State-Regulated Buildings, Structures, and Applications. The provisions in Chapters 2 through 17 of the Uniform Mechanical Code of the International Association of Plumbing and Mechanical Officials contained or referenced in this code shall apply to all occupancies and applications not regulated by a state agency.

EXCEPTION: Local modifications complying with Health & Safety Code Section 18938 (b) of Building Standards Law and Section 17958 of State Housing Law. See Section 101.7.

101.3.2 State-Regulated Buildings, Structures, and Applications. The model code provisions, amendments to them, and/or provisions where there are no relevant model code provisions shall apply to the following buildings or structures regulated by state agencies as referenced in the Matrix Adoption Tables and as specified in Sections 102 through 113. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the State Legislature.

NOTE: See Legend to distinguish the model code provisions from the California provisions.

(1) ...

(11) Public elementary and secondary schools, community college buildings, and state-owned or state-leased essential services buildings regulated by the Division of the State Architect. See Section 109.2 for additional scope provisions.

...

101.4 Appendices. Provisions contained in the appendices of this code shall not apply unless specifically adopted by a state agency or adopted by a local enforcing agency in compliance with Health and Safety Code section 18938(b) of Building Standards Law and Health & Safety Code section 17950 for State Housing Law. See Section 101.7.

101.5 Referenced Codes. The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code. When this code does not specifically cover any subject related to building design and construction, recognized engineering practices shall be employed.

101.6 Non-Building Standards, Orders and Regulations. Requirements contained in the California Building Standards Code, or in any other referenced standard, code or document, which are not building standards as defined in section 18909, Health & Safety Code, shall not be construed as part of the provisions of this code. For non-building standards, orders, and regulations, see other Titles of the California Code of Regulations.

101.7 Order of Precedence and Use. In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern. Where a specific provision varies from a general provision, the specific provisions shall apply.

101.8 City, County, or City and County Amendments, Additions or Deletions. The provisions of this code do not limit the authority of city, county, or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with Section 101.8.1. The effective date of amendments, additions, or deletions to this code of cities, counties, or city and counties filed pursuant to Section 101.8.1 shall be the date filed. However, in no case shall the amendments, additions or deletions to this code be effective any sooner than the effective date of this code.

101.8.1 Findings and Filings.

(1) The city, county, or city and county shall make express findings for each amendment, addition or deletion based upon climatic, topographical, or geological conditions.

Exception: Hazardous building ordinances and programs mitigating unreinforced masonry buildings.

(2) The city, county, or city and county shall file the amendments, additions, or deletions expressly marked and identified as to the applicable findings. Cities, counties, cities and counties, and fire departments shall file the amendments, additions or deletions, and the findings with the California Building Standards Commission at 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833.

(3) Findings prepared by fire protection districts shall be ratified by the local city, county, or city and county and filed with the California Department of Housing and Community Development at 1800 3rd Street, Room 260, Sacramento, CA 95814. See Health & Safety Code Section 13869.7.

101.9 Effective Date of this Code. Only those standards approved by the California Building Standards Commission and that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code.

101.10 Availability of Codes. At least one copy of the entire Titles 8, 19, 20, 24, and 25 of the California Code of Regulations with all revisions shall be maintained in the office of the building official responsible for the administration and enforcement of this code. See Health & Safety Code Section 18942 (d) (1) & (2).

101.11 Format. This part fundamentally adopts the Uniform Mechanical Code by reference on a chapter-by-chapter basis. Such adoption is reflected in the Matrix Adoption Table of each chapter of this part. When the Matrix Adoption Tables make no reference to a specific chapter of the Uniform Mechanical Code, such chapter of the Uniform Mechanical Code is not adopted as a portion of this code.

101.12 Validity. If any chapter section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes, or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this code.

101.13 Conflicts Between Codes. When the requirements of this code conflict with the requirements of any part of the California Building Standards Code, Title 24, the most restrictive requirement shall prevail.

SECTION 109

Division of the State Architect

(109.1 - Reserved for DSA-AC)

109.2 [For DSA-SS] Division of the State Architect - Structural Safety

Application - Public elementary and secondary schools, community college buildings, and state-owned or state-leased essential services buildings.

Enforcing Agency - (DSA - SS)

Authority Cited - Education Code § 17310 and 81142, and H&S Code §16022.

Reference - Education Code §§ 17280 through 17317, and 81130 through 81147, and H&S Code §§16000 through 16023.

The Division of the State Architect has been delegated the responsibility and authority by the Department of General Services to review and approve the design and observe the construction of public school buildings, and state-owned or state-leased essential services buildings.

CHAPTER 2 - Definitions

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 2 (Definitions), and adopt entire 2006 edition UMC Chapter 2 without amendment (existing amendments are proposed to be repealed).

203.0 -A-

ADMINISTRATIVE AUTHORITY is the individual official, board, department, or agency established and authorized by a state, county, city, or other political subdivision created by law to administer and enforce the

provisions of the mechanical code as adopted or amended. This definition shall include the Administrative Authority's duly authorized representative. ~~[For DSA - SS] See enforcing agency.~~

204.0 -B-

BUILDING CODE is the building code that is adopted by this jurisdiction. ~~[For DSA - SS] For purpose of the California Mechanical Code, "Building Code" shall be the most recent edition of the California Building Code.~~

BUILDING OFFICIAL. See authority having jurisdiction. ~~[For DSA - SS] For the State of California, "Building Official" shall be the "enforcing Agency" as specified in Section 108.~~

207.0 -E-

Enforcing Agency ~~[For DSA - SS] is the designated department or agency as specified in statutes to enforce the specific building standards promulgated or adopted by the specified state agency.~~

215.0 -M-

Machinery Room ~~[For DSA - SS] is a room in which a refrigeration system is permanently installed and operated but not including evaporators located in a cold storage room, refrigerator box, air-cooled space or other enclosed space. Closets solely contained within, and opening only into, a room shall not be considered machinery rooms, but shall be considered a part of the machinery rooms in which they are contained or open into. It is not the intent of this definition to cause the space in which unit or self-contained systems of Group I refrigerants are located to be classified as machinery rooms.~~

217.0 -O-

OCCUPANCY CLASSIFICATION ~~[For DSA - SS] Shall be those as shown in the California Building Code, for the purpose of this code, certain occupancies are defined as follows...~~

223.0 -U-

UMC ~~[For DSA - SS] is the most recent edition of the Uniform Mechanical Code published by the International Association of Plumbing and Mechanical Officials.~~

UMC STANDARDS ~~[For DSA - SS] are the Uniform Mechanical Code Standards included in Appendix A of the most recent edition of the Uniform Mechanical Code published by the International Association of Plumbing and Mechanical Officials.~~

CHAPTER 3 - General Requirements

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 3 (General Requirements), and adopt entire 2006 edition UMC Chapter 3 without amendment (existing amendment Section 304.4.1 is proposed to be repealed).

~~**304.4.1 Anchorage and Support.** [For DSA - SS] The anchorage and supporting structural elements for warm-air furnaces and heating systems, when installed in public schools, community colleges, state-owned and state-leased essential services buildings shall be designed to withstand lateral forces as required by the California Building Code.~~

CHAPTER 4 - Ventilation Air Supply

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 4 (Ventilation Air Supply), and adopt entire 2006 edition UMC Chapter 4 without amendment.

CHAPTER 5 - Exhaust Systems

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 5 (Exhaust Systems), and adopt entire 2006 edition UMC Chapter 5 without amendment (existing amendment Section 505.1.1 is proposed to be repealed).

~~**505.1.1 Anchorage and Support** [For DSA - SS] The anchorage and supporting structural elements for ventilation and product-conveying systems, when installed in public schools, community colleges, state-owned or~~

~~state-leased essential services buildings, shall be designed to withstand the lateral forces as required by the California Building Code, Title 24, Part 2.~~

CHAPTER 6 - Duct Systems

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 6 (Duct Systems), and adopt entire 2006 edition UMC Chapter 6 without amendment (existing amendment Section 605.3 is proposed to be repealed).

~~**605.3 [For DSA – SS]** Cold air ducts shall be insulated wherever necessary or to prevent condensation problems.~~

CHAPTER 7 - Combustion Air

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 7 (Combustion Air), and adopt entire 2006 edition UMC Chapter 7 without amendment.

CHAPTER 8 - Chimneys and Vents

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 8 (Chimneys and Vents), and adopt entire 2006 edition UMC Chapter 8 without amendment.

CHAPTER 9 - Installation of Specific Equipment

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 9 (Special Fuel-Burning and Energy-Utilizing Equipment), and adopt entire 2006 edition UMC Chapter 9 without amendment.

CHAPTER 10 - Steam and Hot Water Boilers

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 10 (Steam and Hot Water Boilers), and adopt entire 2006 edition UMC Chapter 10 without amendment.

CHAPTER 11 - Refrigeration

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 11 (Refrigeration), and adopt entire 2006 edition UMC Chapter 11 without amendment (existing amendment Section 1106.2.1 is proposed to be repealed).

~~**1106.2.1 Anchorage and Support for Refrigeration Equipment and Cooling Towers. [For DSA – SS]** The anchorage and supporting structural elements for refrigeration equipment and cooling towers, when installed in public school buildings, community colleges, state-owned or state-leased essential services buildings shall be designed to withstand the lateral forces as required by the California Building Code, Title 24, Part 2.~~

CHAPTER 12 - Hydronics

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 12 (Hydronics), and adopt entire 2006 edition UMC Chapter 12 without amendment (existing amendment Section 1201.2.6.3 is proposed for repeal).

~~**1201.2.6.3 Anchorage and Support. [For DSA – SS]** The anchorage and supporting structural elements for steam and water piping systems, when installed in public school buildings, community colleges, state-owned or state-leased essential services buildings shall be designed to withstand the lateral forces as required by the California Building Code, Title 24, Part 2.~~

CHAPTER 13 - Fuel Piping

Model Code Adoption/Repeal: Adopt entire 2006 edition UMC Chapter 13 without amendment.

CHAPTER 14 - Process Piping

Model Code Adoption/Repeal: Adopt entire 2006 edition UMC Chapter 14 without amendment.

CHAPTER 15 - Solar Systems

Model Code Adoption/Repeal: Adopt entire 2006 edition UMC Chapter 15 without amendment.

CHAPTER 16 - Stationary Fuel Cell Power Plants

Model Code Adoption/Repeal: Adopt entire 2006 edition UMC Chapter 16 without amendment.

CHAPTER 17 - Standards

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Chapter 16 (Standards), and adopt entire 2006 edition UMC Chapter 17 without amendment.

APPENDIX A - Uniform Mechanical Code Standards No. 2.2, No. 6-2, and No. 6-5

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Appendix A (Uniform Mechanical Code Standards), and adopt entire 2006 edition UMC Appendix A without amendment.

APPENDIX B - Procedures to be Followed to Place Gas Equipment in Operation

Model Adoption/Repeal: Appendix B is not adopted.

APPENDIX C - Installation and Testing of Oil (Liquid) Fuel-Fired Equipment

Model Code Adoption/Repeal: Appendix C is not adopted. Repeal entire 2000 edition UMC Appendix C (Sizing of Venting Systems Serving Appliances Equipped with Draft Hoods Appliances Listed for Use with Type B Vents).

APPENDIX D - Unit Conversion Tables

Model Code Adoption/Repeal: Repeal entire 2000 edition UMC Appendix D (Unit Conversion Tables), and adopt entire 2006 edition UMC Appendix D without amendments.

Authority: Education Code § 17310 and 81142, and H&S Code §16022.

Reference: Education Code §§ 17280 through 17317, and 81130 through 81147, and H&S Code §§16000 through 16023.